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COMMONWEALTH OF AUSTRALIA

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(Accompanied by
a Provisional Specification)

Complete Specification entitled (54) IMPROVED EGG CARTON.

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Applicant (71) CONSOLIDATED FIBRE PRODUCTS PROPRIETARY LIMITED.

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Related Art (56)

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|---|---|
| 261,596(21,123/62) | 57.9 |
| 228,591(42,144/58) | 57.9 |
| 225,262(41,629/58) | 57.9. |

The following statement is a full description of this invention, including the best method of performing it known to us:

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81-1D-29/10/70-5P.C.

This invention relates to an improved egg carton of the type hereinafter referred to as the "type described" comprising a lower pocketed tray portion which receives the eggs an upper cover portion hinged to the lower portion, and locking means for locking the cover portion in a closed position. The invention relates particularly to the locking means.

The most common present construction for locking egg cartons comprises a locking flap hinged along the front edge of the tray part of the carton and provided with outwardly projecting locking lugs which coact with apertures in the cover portion to lock the cover in the closed position. This present constructions suffers from the disadvantage that it requires the provision of an additional element, namely a locking flap, and furthermore the locking provided by the projections on the locking flap is sometimes insecure.

The principle object of this invention is therefore to provide a simple, effective and cheaply constructed locking means for egg cartons.

Egg cartons are usually made to hold one dozen eggs but frequently the cartons are made so that they can, if desired, be split to provide two half dozens. With conventional locking constructions, when the carton is split into two halves, the locking is frequently insufficient to ensure that the cover is maintained in the locked position. It is accordingly, a further object of one form of this invention, to provide a locking arrangement which is adequate to secure the cover to the tray when a carton is broken into two portions.

According to this invention, there is provided an egg carton of the type described in which the locking means comprises upstanding lugs formed on the front edge of the lower tray part of the carton and adapted to coact with openings ~~or indentations~~ formed on the front of the upper cover portion of the carton, the lugs being provided with forwardly and downwardly projecting lips, the said lugs being disposed such that, when the said portions are closed together, the said lugs project through the coacting openings and with lower edges of said openings lying edges thereof disposed closest towards the adjacent marginal edge of the upper cover portion, each and engaged under said lips.

Preferably further, the lugs are formed as upwardly projecting part-conical portions of the front edge of the tray and each is positioned at the cleavage between two adjacent egg receiving compartments. Preferably also, there are at least four such lugs provided in the case of a tray which is adapted to be split into two halves, two lugs being provided on each half.

In order to give a clear understanding of the invention, one embodiment thereof will now be described with reference to the accompanying drawings, in which,

Figure 1 is a plan view of an open egg carton constructed in accordance with the invention;

Figure 2 is a section on the line 2-2 in Figure 1;

Figure 3 is an enlarged section of part of the egg carton, the section being taken on the line 2-2 but showing the carton closed, and

Figure 4 is an elevation of part of the egg carton as seen from the right of Figure 3.

As seen in Figure 1, the egg carton comprises a lower tray portion 5 having two side by side rows of six

upwardly open and generally conical egg receiving pockets 6. To one long edge of tray portion 5 there is hinged a cover 7 which is an unpocketed tray-like member of depth approximately equal to the depth of the pockets 6. The outer face of cover 7 has a depression (seen as an internal ridge 8 in Figure 1) transverse to and midway along its length to facilitate the splitting of the carton into two portions.

Along the front edge of lower tray portions (i.e. the edge opposite to that along which cover 7 is hinged), four upwardly projecting locking lugs 9 are provided. Lugs 9 are integrally moulded with the front walls of lower tray portion 5 during the formation of the carton from paper pulp or the like. As seen in Figures 2 and 3, lugs 9 are of generally frusto-conical configuration closed at the top, but their front portion of each lug is cut away just below the top. The tops of lugs 9 thereby constitute small downwardly open shallow thimbles, the front free edges of which form forwardly and downwardly projecting lips 10. As seen in Figure 4 lugs 9 are provided, directly above the cleavages 11 between the first and second, second and third, fourth and fifth and fifth and sixth pockets in the front row of pockets 6.

The front wall of cover 7 of the carton is provided with openings 12 at positions corresponding to the positions of lugs 9 on the front edge of the lower tray portion 5. When the carton is closed by swinging cover 7 about its hinge connection with tray portion 5, the lower front edge of cover 7 first of all engages the

tops of lugs 9 and due to the mutual resilience of the cover and of the lugs, forward deflection of the edge of the cover takes place, which deflection permits the engaging surfaces to slide relative to one another until each lug 9 is opposite it corresponding opening 12. The lugs : then snap into position in those openings. The downwardly and forwardly projecting lip 10 of each lug portion projects through the corresponding opening 12 and locks against the lower edge of the opening thereby securely engaging cover 7 and locking it in position.

To further ensure adequate closure of the carton the lower front edge of cover 7 is formed with a projecting portion 13 along substantially the full length of the front edge. When cover 7 is in the closed position projecting portion 13 extends downwardly a short distance below the general level of the upper edge of lower tray portion 5 as best seen in Figure 4.

The above described construction provides a simple, cheap and effective locking arrangement for an egg carton and furthermore, due to the fact that four locking lugs are provided on the carton, breaking of the carton into two halves nevertheless leaves the cover of each half securely locked with two lugs. Whilst the invention has been illustrated with particular reference to the preferred construction above described, it is to be understood that variations and modifications can be made to that construction without departing from the spirit and scope of the invention which includes every novel feature and combination of features hereinbefore disclosed.

The claims defining the invention are as follows:-

1. An egg carton of the type described in which the locking means comprises upstanding lugs formed on the front edge of the lower tray portion of the carton and adapted to coact with openings ~~or indentations~~ formed on the front of the upper cover portion of the carton, the lugs being provided with forwardly and downwardly projecting lips, the said lugs being disposed such that, when the said portions are closed together, the said lugs project through the coacting openings and with lower edges of said openings (being edges thereof) disposed closest towards the adjacent marginal edge of the upper cover portion, engaged (with and) under said lips.

(26th August, 1965)

2. An egg carton as claimed in Claim 1 wherein the lugs are formed as upwardly projecting part-conical portions of the front edge of the tray and each is positioned at the cleavage between two adjacent egg receiving compartments. (26th August, 1965)

3. An egg carton as claimed in Claim 2 in which the lugs are of generally frusto-conical configuration closed at their tops but with their front portions cut away below their tops to form front free edges defining said lips. (26th August, 1965)

4. An egg carton as claimed in any one of the preceding claims, which carton is adapted to be split in two halves by the provision of a transverse depression midway along the outer face of the cover portion.

(26th August, 1965)

5. An egg carton as claimed in Claim 4, in which there are at least two of said lugs on each half of the carton. (26th August, 1965)

6. An egg carton substantially as hereinbefore described with reference to the accompanying drawings. (26th August, 1965)

Dated this 7th day of July 1970

CONSOLIDATED FIBRE PRODUCTS
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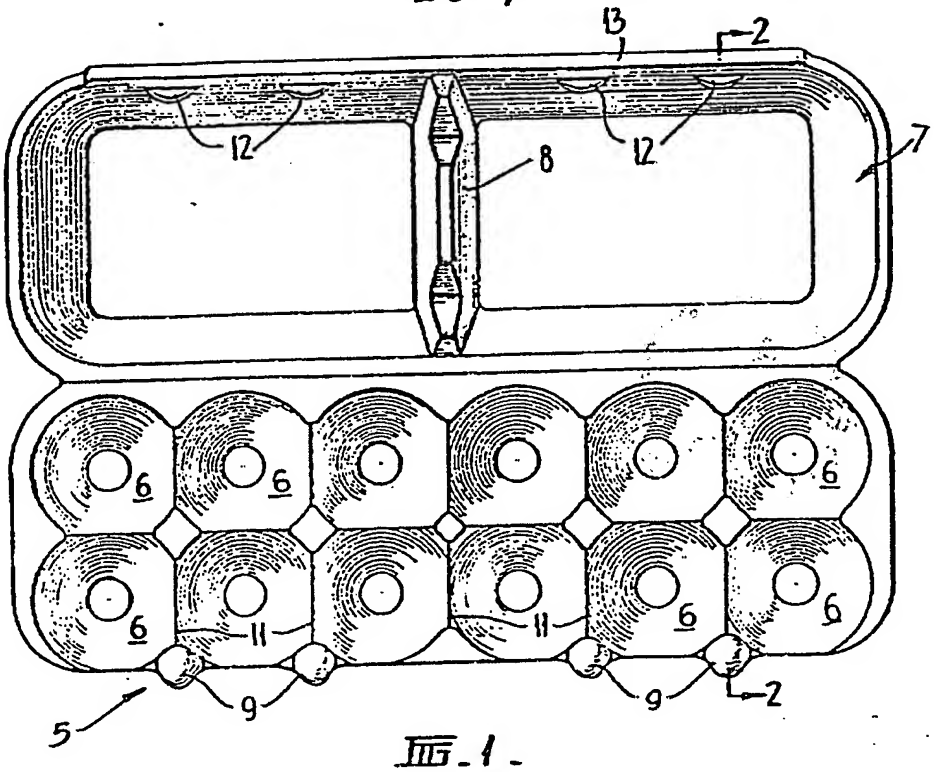


FIG. 1.

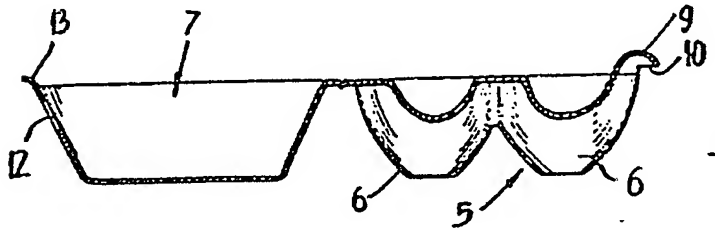


FIG. 2.

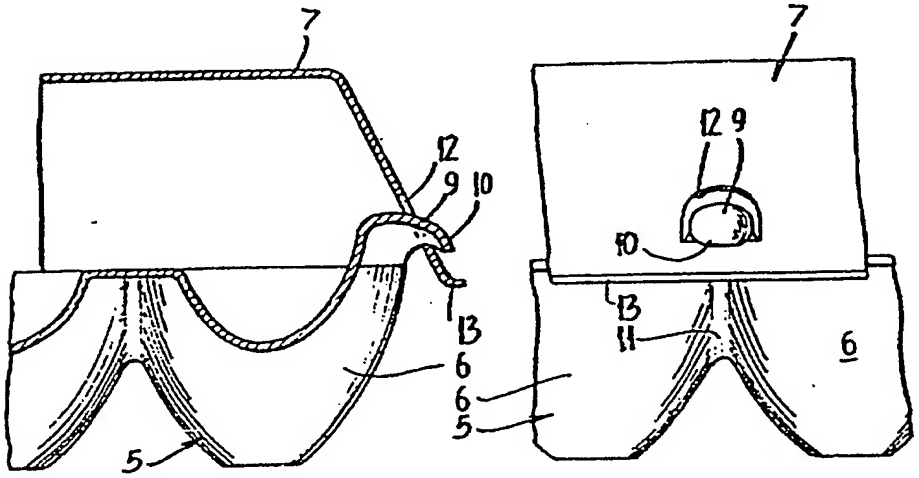


FIG. 3.

FIG. 4.